

E-ISSN: 2618-0618 **P-ISSN:** 2618-060X © Agronomy

NAAS Rating (2025): 5.20 www.agronomyjournals.com

2025; SP-8(12): 369-376 Received: 21-10-2025 Accepted: 23-11-2025

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Import and export policies of agricultural products in India

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DOI: https://www.doi.org/10.33545/2618060X.2025.v8.i12Se.4440

Abstract

India's economy heavily relies on agriculture, which supports trade, rural livelihoods, and food security. To balance domestic demands and international market opportunities, India has developed import and export policies for agricultural products. Import regulations ensure essential supplies while safeguarding farmers, including sanitary and phytosanitary standards compliance, quantitative restrictions, import licensing, and tariff and non-tariff barriers. Export policies aim to increase competitiveness, encourage excess trade, and diversify India's export market. Important reforms include the Agriculture Export Policy (2018), promotion of value-added and processed agricultural products, and APEDA incentives. However, frequent policy changes, such as export prohibitions and fluctuating tariffs, cause uncertainty for both domestic and foreign stakeholders. High logistics costs, inadequate cold chain and storage facilities, and challenges meeting international quality standards impede growth. Recent trends, such as e-NAM, infrastructure investment, organic certification, and climate-resilient practices, reflect a shift towards sustainability and market integration. To fully realize India's potential in the global agricultural economy, open regulations, farmer-centric trade strategies, and greater policy stability are crucial.

Keywords: Agricultural export policy, FTP, agricultural trade, tariff, TMA scheme, APEDA act

Introduction

India's economy depends heavily on agriculture. Rural households play an important role in agriculture. India is mostly an agricultural nation. The majority of Indian families make their living primarily from agriculture. With 70% of the population living in rural areas, agriculture is a major contributor to India's economy (Chand et al. n.d.). Over 60% of the workforce is employed in agriculture, which also contributes roughly 17% of the nation's total GDP. India's agricultural output has grown significantly in the last few decades, rising from 51 million tons in 1950-51 to 250 million tons in 2011-12 (Gulati and Juneja 2021b) [17]. India is the second-largest country in the world in terms of total cultivated land, with nearly 60% of its land area under cultivation. Among the most significant agricultural products are rice, wheat, potatoes, tomatoes, onions, mangoes, sugarcane, beans, and cotton. Agriculture, which includes farming and animal husbandry, makes up 10% of India's total exports and 16% of its GDP. (Yadav and Ahmad 2022) [44] It is a vital source of raw materials for numerous businesses and provides a living for two-thirds of the population. The Indian agriculture industry has seen significant transformations as a result of contemporary farming methods, particularly since the mid-1960s. As of 2023, agriculture accounts for roughly 17-18% of India's GDP, making it a crucial sector. (Anon n.d.). Agriculture is still essential to economic stability, especially in rural areas, even though this share has decreased as a result of the growth of the secondary and tertiary sectors. Other industries, like manufacturing and services, are impacted by the sector's performance. Over half of India's workforce is employed in agriculture, which reduces migration to cities and creates job opportunities in rural areas. With a large rural population, agriculture provides a social safety net for people who have limited access to other economic sources.

Agriculture, accounting for 13.7% of GDP and job creation, is a crucial sector in the Indian economy. It contributes to GDP, employment, and exports, employing over 620 million people and accounting for 52% of the workforce. Despite significant development over the last 60 years, agriculture remains the most significant industry in the Indian economy (Saxena et al. 2023a) [34].

Corresponding Author: Aryan Kaswan,

University Institute of Agricultural Sciences, Chandigarh University, Gharuan, Mohali, Punjab, India Trade liberalization, globalization, and the World Trade Organization system have all had a substantial impact on India's farm trade. The value of India's agricultural exports climbed from 2.4% in 1980-1994 to 9.7% in 1995-2009, while its share of global total farm commerce increased from 0.7% to 1.1% (Akridge *et al.* 2025) ^[2]. Indian agriculture's openness increased from 7.4% in 1994-1995 to 14.4% in 2009-2010, with net export earnings of \$6541.1 million. Globalization could strengthen agriculture's growth engine and increase food security.

Overview of Agricultural Trade in India

India is a major agricultural commodity exporter, contributing significantly to global agricultural commerce. In 2020, agriculture accounted for 14.40% of India's total exports, up from 11.40% in 2019- 2020. In 2021, agricultural exports and imports were 2.4% and 1.7%, respectively. In 2021-22, Agri and Allied exports climbed by 20.79% to Rs. 3,74,611.64 crores. The growth was driven by exports of wheat, dairy products,

gummam, sugar, cashew nut shell liquid cotton raw waste, cereals, coffee, milled products, miscellaneous items, and pulses. India's position as a significant exporter is incentivized by the growth of these commodities (Debesh Roy and Roy n.d.). In 2021-22, India's Agri and Allied imports increased by 50.56% over 2020-21, totaling Rs239189.50 crore. The increase was principally driven by increasing imports of vegetable oil, fresh fruits, pulses, spices, cashew, natural rubber, oil meals, cotton raw waste, processed items, cocoa products, cereal preparations, coffee, processed fruit and juices, and jute raw (Mustafa and Iqbal 2021) [27]. However, the share of agricultural and allied imports fell from 5.45% in 2020-21 to 5.23% in 2021-22. Major importers include Indonesia, Myanmar, Argentina, the United States, Brazil, Nepal, China, Sri Lanka, Thailand, Singapore, Malaysia, Tanzania, the United Arab Emirates, Afghanistan, Bangladesh, Vietnam, Canada, the Netherlands, Ukraine and Australia.

Table 1.1: Exports of Top 10 agricultural products in India. (Quantities in Tones and Value in Rs. Crores.)

Sr. No.	Commo dity	2017-2018		2018-2019		2019-2020		2020-2021		2021-2022		2022-2023	
		Quantity	Value										
1.	Marine Products	1432	47646	1672	47665	1329	47618	1168	44176	1398	57910	1286	50157
2.	Rice	8819	23437	7648	21171	5056	14400	13149	35557	17289	45725	13172	37158
3.	Sugar	1758	5226	3990	9523	5799	13982	7518	20669	10457	34345	8257	31693
4.	Spices	1096	20085	1134	23218	1193	25642	1607	29529	1428	29039	925	21923
5.	Basmati rice	4057	26871	4415	32804	4455	31026	4630	29848	3944	26390	3197	26590
6.	Buffalo meat	1350	26035	1233	25091	1152	22661	1086	23460	1175	24613	870	18994
7.	Cotton	1101	12200	1143	14628	658	7540	1214	13968	1259	21007	196	4001
8.	Wheat	323	624	227	424	220	444	2155	4173	7245	15845	4656	11728
9.	Castor oil	697	6730	619	6170	594	6324	734	6802	715	8754	469	7169
10.	Misc items	0	3549	0	4613	0	4587	0	6403	0	8715	0	8122

Source: Government of India (Department of Commerce)

Table 1.2: Imports of Top 10 agricultural products in India. (Quantities in Tonnes and Value in Rs. Crores.)

Sr. No	Commodity	2017-2018 Quantity	2017- 2018 Value	2018-2019 Quantity	2018- 2019 Value	2019-2020 Quantity	2019- 2020 Value	2020-2021 Quantity	2020- 2021 Value	2021-2022 Quantity	2021- 2022 Value	2022-2023 Quantity	2022- 2023 Value
1	Vegetable oils	1536	7499	1501	6902	1472	6885	1354	8212	1427	1415	1170	1283
2	Fresh fruits	995	1252	1124	1393	994	1413	1212	5765	1552	1834	1062	1485
3	Pulses	5608	1874	2528	8035	2898	1022	2466	1193	2700	1662	1714	1094
4	Spices	222	6385	241	7933	321	1018	344	8071	364	9685	317	8163
5	Cashew	654	9134	840	1116	941	9026	834	7491	939	9338	1204	1300
6	Natural rubber	470	5344	582	6128	457	4927	410	4620	546	7703	420	6196
7	Alcoholic beverages	ı	3876	-	4679	-	4644	ı	4037	-	5182	252	4921
8	Oil meals	486	747	504	870	860	1519	510	1018	1302	4542	421	1464
9	Other oil seeds	127	365	220	745	411	1528	507	2165	701	4308	368	2407
10	Cotton	469	6307	299	4383	744	9371	231	2861	224	4169	404	1052

Source: Government of India (Department of Commerce)

Regulatory Framework for Agricultural Trade

India's funding for agricultural producers has been decreasing over the past two decades, with local farmers being implicitly taxed due to domestic marketing regulations and trade laws. This has led to a 15% decrease in net assistance for gross farm receipts in 2020-22 (Dhaduk 2024a) [15]. Export limits have been in effect for specific crops since 2022. Single Commodity Transfers (SCTs) are primarily made up of MPS, with positive SCTs accounting for 8% to 30% of commodity revenues. Financial expenditures for the primary revenue transfer program, PM-KISAN, have increased since 2018, accounting for 7.2% of overall spending (Gulati and Juneja 2021a) [16]. Public spending on general sector services (General Service Support Estimate, GSSE), primarily for investments in off-farm irrigation systems, is around half that of variable input subsidies.

Policies that alter agricultural prices implicitly help consumers,

with subsidies for food provided by the Targeted Public Distribution System lowering consumer costs. In 2020-22, consumer assistance is expected to account for 44% of all commodity expenditures (Hamulczuk $et\ al.\ 2023)^{[18]}$.

The Indian government increased Minimum Support Prices (MSP) for summer-planted crops like rice and maize in June and winter-planted crops like rapeseed, lentils, barley, and wheat in October 2022. Fertilizer subsidies were increased to cover transportation costs. The government launched digitization and agri- environmental projects, including the Agri-Export Policy and drone support for agricultural activities. Export limits were imposed to stabilize domestic prices following Russia's invasion against Ukraine. The Ministry of Consumer Affairs lifted oil stock limits in November 2022(Kaonga *et al.* 2023) [20].

The Indian government implemented various marketing regulations in the 1950s and 1960s to regulate agricultural

commodity sales, stockpiling, and trade. The vital goods Act (ECA) of 1955 established control over distribution, supply, production, and pricing of vital goods (Dev 2023) [14]. The Agricultural Produce Markets Regulation (APMR) Acts were implemented in the 1960s and 1970s, with regulated market yards serving as primary points of sale. The Food Corporation of India (FCI) and the Commission for Agricultural Costs and Prices (CACP) were established in 1965 to control wheat and rice prices (Singh 2022) [37]. In the 2000s, agricultural policies aimed to boost production and farmers' incomes, with the National Agricultural Policy and the National Policy for Farmers prioritizing economic well-being. The government reforms domestic agricultural marketing legislation in June 2020, but repealed in November 2021 (Vohra and Sharma 2024) [42].

India's Ministry of Commerce and Industry (MoCI) renewed its unlimited import policy for pigeon peas and black gram lentils until March 31, 2023, allowing no quantity limitations. Export limits were imposed on raw, refined, and white sugar, requiring a special permit. In May 2022, duty-free TRQs were reinstated for crude soybean oil and crude sunflower oil until 2024, and soybean meal. Lower tariff rates were extended for crude palm oil, refined palm olein, RBD palm oil, and crude soybean oil until March 31, 2023. In January 2023, 79 ports of entry were created for high-risk food items (Anon n.d.).

Key Acts and Policies

The Discovery of India highlights India's goal of national self-sufficiency and international trade, regulated by the Foreign Trade Development and Regulation Act of 1992 and the Director General of Foreign Trade.

EXIM policy

The EXIM Policy, which is announced every five years, is the government's export-import policy. It includes regulations for imports and exports, marketing measures, duty-free schemes, promoting exports schemes, and exclusive economic zone programmes. The strategy prioritizes agricultural exports by establishing Agri Export Zones (AEZ), lowering procedural hurdles, and giving marketing cost assistance. The AEZ was founded under the EXIM strategy of 2001 to benefit the agriculture business (Abdulla 2023) [1].

In 2003-2004, corporate sponsors are invited to help the AEZ by offering incentives for infrastructure, processing, packing, storage, research and development, and other facilities. The DEPS (Duty Entailment Pass Book) instructs farmers to look for consistent inputs to boost output and quality. Import restrictions on 69 products have been eased, including spices, animal products, vegetables, films and antibiotics.

In 2004-2009, the agriculture policy established the Vishesh Krishna Upaj Yojana, a unique agriculture commodities plan designed to boost agricultural commodity exports. The system allows for the export of vegetables, fruits, small forest goods, flowers, and value-added items. New export excellence towns of Rs.250 crores will be unveiled (Dhaduk 2024) [15]. Five percent of the FOB (Free on Board) value of agricultural exports will be eligible for duty-free treatment. The strategy also authorized the use of ASIDE funds to build agricultural export zones. Since 2005, the export tax on agricultural and plantation items has been eliminated. Interstate trade councils, including agriculture, will be formed to promote international trade.

In 2009-2014, while advance approval for agricultural exports permits the import of inputs, EPCG makes it easier to install capital items within the AEZ. New export excellence towns have

been announced, with a maximum of Rs.150 crore. Some selected crops are eligible for special duty credits.

In 2015-2020, 'Make in India' along with 'Digital India' will be incorporated into India's foreign trade policy. With a higher degree of assistance for processed and packaged farm and food commodities, MEIS will offer global support for village industry and agricultural products at a rate of 5% and 3%, respectively. Preferential funding for export promotion initiatives will be given to TEE (Towns of Export Excellence). Common Service Providers in TEE regions will be authorized through the EPCG initiative. EOUs in agriculture, poultry, aquaculture, horticulture, pisciculture, animal husbandry, viticulture, floriculture, and sericulture may remove certain products for use outside their premises.

Foreign trade Policy FTP 2023

The Foreign Trade Promotion 2023 plan focuses on four pillars: convenience of doing business, remission incentives, ecommerce, export promotion, partnership, and transaction cost reduction. It transitions from incentives to cooperative principles and technical integration, implementing duty exemption programs.

The FTP plans to design Towns of Export Excellence to boost handicraft, handloom, and carpet exports. They will encourage exporters' recognition and collaborate with state governments to enhance DEH projects. The FTP also plans to streamline the SCOMET Policy and develop e-commerce centers, rationalize the EPCG program, and implement an amnesty program to address export requirement defaults (Loganathan n.d.).

Agricultural produce market committee (APMC) act

States passed the APMC (Agricultural Produce Market Committee) Act to control trade in farm goods and keep farmers from being taken advantage of. In order to guarantee fair prices, uniform weights, and market infrastructure, it created regulated mandis where farmers sold their produce at open auctions. As farmers were forced to sell only in middleman-dominated mandis with exorbitant fees and little competition, the system gradually became restrictive. Reforms such as the Model APMC Act (2003), e-NAM, and the Farm Acts of 2020 were introduced to address this; however, the latter were later repealed. APMCs are still crucial today, but they need to be updated and reformed (Banerjee 2022) [9].

Import Policies

India's agricultural import regulations are constantly evolving to meet consumer demands, farmer protection, food security, and international trade agreements. These policies include sanitary and phytosanitary laws, licensing programs, monitoring systems, tariffs, and non-tariff restrictions.

Tariff Measures

Tariffs are an important component of India's agricultural import policies, regulating trade flows and preventing native farmers from being undercut by cheaper imports. The levels of agricultural tariffs in India are constantly changing to take into account the dynamics of domestic supply and demand. To safeguard farmer profits, high tariffs are imposed on commodities that are vulnerable, such as grains, dairy products, pulses, and edible oils. (Bondarenko n.d.). For instance, to ensure a sufficient supply and lower food inflation, masur imports which are typically subject to a 30% customs tariff were eliminated until March 2025. In 2025, import duties on cotton were lowered to support India's apparel and textile sector, which was in need of cheaper raw materials due to heightened global

competition. Tariffs serve as a balancing mechanism in India's agricultural import system as well as an economic safeguard during times of global oversupply. (Tiwari 2025) [41]. However, frequent tariff adjustments cause uncertainty for both domestic and international traders, making long-term planning difficult.

Non-Tariff Barriers

Non-tariff barriers (NTBs), such as import quotas, port restrictions, and Minimum Import Price (MIP) requirements, are a major component of India's agricultural trade regime. These tools are used when tariffs alone cannot provide the proper level of market regulation. By requiring imports to be priced above a government-set threshold, the MIP system forbids the "dumping" of cheap agricultural commodities from abroad. For example, yellow pea imports were moved from "restricted" status with a MIP requirement to "free" status due to shortages. By restricting imports to designated entry points, port restrictions enable stricter quality checks and inflow control. (Jha and Bathla 2021) [19]. However, they might result in delays and increased transaction costs. Although NTBs are flexible and can be quickly implemented or removed, they can create ambiguity in trade flows and could be criticized under international trade agreements if they are thought to distort trade. India's use of NTBs demonstrates its cautious approach, which aims to uphold WTO global trade regulations while safeguarding domestic interests.

Sanitary and Phytosanitary (SPS) Measures

An integral component of India's agricultural import policy is SPS measures, which are designed to protect domestic agriculture and consumers from biological and chemical hazards. These measures are mandated by law, such as the Plant Ouarantine (Regulation of Import into India) Order, 2003, and the regulations enforced by the Food Safety and Standards Authority of India (FSSAI). SPS measures cover a wide range of checks, including testing for pesticide residues, preventing the entry of pests and diseases, and ensuring the safety of imported food products for human consumption. For example, imports of fruits and nuts, such as apples, almonds, and walnuts, are subject to stringent SPS checks in addition to tariffs to prevent the spread of invasive pests. Cereals and pulses also undergo quarantine procedures to ensure they are free of plant diseases. Despite the fact that these rules are essential for safeguarding domestic food systems, they often raise the costs of compliance for exporters conducting business in India, acting as a sort of technical trade barrier. This can occasionally slow down trade processes and create tension with exporting nations. SPS methods are useful for preserving both domestic biodiversity and strict food safety regulations. Nevertheless, misuse or opaqueness in their use could reduce import effectiveness and spark global conflicts. (Wagner 2024) [43]. As India expands its participation in global food trade, aligning SPS norms with worldwide benchmarks while maintaining sovereignty over food safety will remain a significant problem.

Import Licensing and Restrictions

Another crucial policy tool is importing licensing, particularly for delicate products that need close supervision. Products fall into one of three categories: "free," "restricted," or "prohibited." The Directorate General of Foreign Trade (DGFT) must grant prior approval for products in the restricted category. The government can regulate import volumes and make sure that only authorized companies engage in business thanks to this licensing system (Malik 2025) [26]. Dairy imports are a well-

known example. India is fiercely protective of this industry thanks to its vast network of dairy cooperatives. To shield domestic producers from foreign competition, imports of milk powder and related products are strictly regulated through licensing. According to domestic harvest results, pulses like urad and tur are also commonly transferred from the restricted to the free category. Licensing ensures that imports are not excessive and that they enhance domestic supply instead of depleting it. The government's ability to keep a close eye on and regulate sensitive areas is an advantage of licensing. But licensing can also lead to a lack of transparency, rent-seeking, and bureaucratic delays. Under WTO rules, licensing schemes could be contested as non-tariff barriers if they are overused.

Monitoring and Registration Systems

India forbids uncontrolled inflows, even when imports are liberalized under the "free" category. Rather, imports are monitored by the government through Import Monitoring Systems (IMS). Importers are required to register consignment details, including product type, source country, and volume, prior to shipments being cleared. To ensure that the governmentmaintained oversight even after trade restrictions were loosened, duty-free imports of yellow peas in 2024-2025 were nevertheless subject to IMS registration requirements. (Kapur 2024) [21]. There are multiple purposes for this monitoring system. It helps prevent import undervaluation or misreporting, provides policymakers with real-time trade flow data, and discourages smuggling. More importantly, it makes sure that import restrictions don't inadvertently overburden the domestic market and cause price instability. Such monitoring methods offer a crucial layer of control in a nation like India, where agricultural markets are extremely susceptible to price fluctuations. IMS has the advantage of being more effective and transparent than licensing. Transactions may be slowed down, though, because merchants are still subject to administrative requirements. It may turn into yet another bureaucratic roadblock if it is not digitized and streamlined. By shifting from restrictive licensing to more open monitoring, IMS highlights India's efforts to enhance trade governance.

Commodity-Specific Case Examples

The application is made clear when import regulations are examined through the prism of particular commodities. Pulses are the most dynamic example: India, the largest consumer in the world, regularly faces supply shortages because of erratic monsoon rains. Because of this, the government frequently lowers port restrictions, license requirements, and tariffs on pulses like yellow peas, tur, urad, and masur. As a reflection of their role in stabilizing availability and pricing, these relaxations are temporary and often renewed annually. Another crucial example is edible oils.

India imports more than half of its edible oil requirements; hence tariffs are the principal weapon for regulating. High tariffs are placed to protect native oilseed producers, although they are regularly reduced as world prices rise or domestic inflation increases.

Recent Examples and Implications

India has employed import policy instruments such as tariff status adjustments, reduction of the Minimum Import Price (MIP), port restrictions, and the Import Monitoring System (IMS) to regulate agricultural imports, stabilize domestic prices, and maintain supply.

Policy of Free Importation for Urad Beans

On March 10, 2025, the Directorate General of Foreign Trade (DGFT) published Notification No. 64/2024-25, extending Urad's (*Vigna mungo*) "Free" import status under HS code 07133110 until March 31, 2026. This free status was previously in effect until March 31, 2025. Sections 3 and 5 of the Foreign Trade (Development & Regulation) Act, 1992, as well as the FTP (Foreign Trade Policy) 2023, provide the legal foundation for this extension (Chaudhary and Singh 2024) [12]. This represents a policy decision to permit ongoing liberalized imports of Urad to satisfy domestic demand, most likely in reaction to price or supply issues.

Yellow Peas: Removal of MIP and Port Restrictions, Use of Monitoring: The DGFT has lifted the Minimum Import Price (MIP) and port restrictions on Yellow Peas imports, designating them "free" (zero tariff) but requiring registration with the Import Monitoring System (IMS) (Anon n.d.). This action tries to boost supply while stabilizing prices. Notifications No. 63/2024-25 and 16/2025-26 extended the "free" import terms for yellow peas until May 31, 2025 and March 31, 2026, respectively.

Export Policies

Agricultural Export Policy (AEP) 2018

By 2022, India plans to increase its exports of agricultural products worth \$30 billion to \$60 billion, with an emphasis on a "Farmers'-Centric Approach" that aims to increase revenue by adding value at the source. The policy's goal is to attain food security and become a leading global agricultural exporter (Tantri 2022) [40]. It also promotes food processing and manufacturing, increasing India's proportion of value-added processed goods in its agricultural export basket. The policy seeks to diversify export destinations, promote non-traditional, organic, traditional, ethnic, indigenous, and new agricultural products, establish an institutional structure for market access, and help farmers to capitalize on export prospects in international markets. The policy also aims to enable farmers to benefit from export opportunities in overseas markets.

The Agri Export Policy aims to provide confidence that processed agricultural products and organic products will not face export limitations, even if primary agricultural items or non-organic products do (Ma *et al.* 2023) ^[25]. It also specifies important goods for food security that will be controlled by a high-level committee in the event of a price spike. Any export prohibitions and limitations on these items would be addressed in a WTO-compliant manner. The import and reexport of agricultural products with added value should also be permitted by the policy. By doing this, farmers would be able to confidently react to market cues and reallocate resources to products with higher returns. the importance of a steady and predictable approach that manages fluctuations in domestic prices and fosters the expansion of agricultural exports.

Agricultural and Processed Food Products Export Development Authority (APEDA) Act

During the 36th year of the Republic of India, Parliament passed the APEDA Act of 1985. Its goal is to create an authority to develop and promote the export of particular agricultural and processed food products. (Roy *et al.* 2023) [31]. The Act is applicable throughout India and goes into effect on the date that the Central Government designates in an Official Gazette publication. Any agricultural or processed food product may be added to or removed from the First or Second Schedules by the

Central Government, at which point it becomes a Scheduled or Special product. Developing and promoting the export of Scheduled items under the Central Government's jurisdiction is one of the Authority's duties. Financial assistance, surveys and feasibility studies, joint venture equity participation, and other relief and subsidy programs are a few examples of these initiatives. The Additionally, the authority can register people as exporters, establish export-related standards and specifications, inspect meat and meat-based products within slaughterhouses, processing plants, storage facilities, conveyances, and other locations to ensure product quality, improve packaging, update marketing outside of India, encourage export-oriented production and development, gather data from factory owners, and offer training in a variety of Scheduled product-related industries.

The Central Government established the Agricultural and Processed Food Products Export Development Fund to provide funding for various purposes, including implementing measures, paying salaries, allowances, administrative costs, and loan repayment. The fund is credited through proper appropriation, fees, and grants from the Central Government and other institutions. The Authority has the authority to borrow on the fund's security and must prepare yearly accounts and maintain proper records, which are reviewed by India's Comptroller and Auditor-General (Parte *et al.* 2023) [28]. Any person who violates orders issued under subsection (1) will face penalties, including imprisonment for up to one year, a fine, or both. According to IBEF (2025), APEDA's financial assistance programs have helped increase fruit and vegetable exports by 47%, highlighting its significance in India's export sector.

Remission of Duties and Taxes on Exported Products (RoDTEP): Following WTO objections to export subsidies, the older MEIS scheme was replaced in January 2021 by RoDTEP. Its primary objective is to reimburse non-refundable hidden taxes and duties, such as fuel excise, mandi fees, and electricity tax. By eliminating domestic tax disadvantages, this guarantees Indian exporters maintain their competitiveness in international markets. The government reinstated RoDTEP benefits for exporters operating in Advance Authorization programs, SEZs, and EOUs in 2025, encompassing more than 10,600 tariff lines (Prakasha n.d.). Although the program has been well received, research highlights issues such as low rebate rates in comparison to MEIS and reimbursement delays.

Transport and Marketing Assistance (TMA) Scheme

In order to lower the high cost of shipping perishable agricultural products to foreign markets, the TMA scheme was established. It provides transportation subsidies for exports of fruits, vegetables, dairy products, and meat. This is particularly important for India; whose export costs are often higher due to logistical bottlenecks and its distance from key markets. By enabling both air and sea freight, TMA expands market access and reduces the price disadvantage of Indian goods. (PRIYANKA *et al.* 2024) [30]. The program has primarily benefited fresh produce exporters to markets in the Middle East and Europe, where cold chains and timely delivery are crucial.

Operation Greens

Operation Greens was launched in 2018 as part of the PM-Kisan SAMPADA Yojana to stabilize the supply and prices of Tomato, Potato, and Onion (TOP) crops. It was later expanded to cover all perishable fruits and vegetables. The program promotes cold storage, food processing, infrastructure

development, and farmer cooperatives in addition to short-term fixes like transportation subsidies during price crashes. (Singh and Rathore 2023) [36] Operation Greens helps to build sustainable value chains for exports by minimizing waste and ensuring post-harvest management. Indian perishable goods are therefore now more competitive in international markets where dependable supply and superior quality are crucial.

International trade in agricultural products is significantly impacted by TBT (technical barriers to trade) and SPS (sanitary and phytosanitary) regulations. India has responded by fortifying its export quality infrastructure through the Export Inspection Council (EIC), APEDA's traceability programs, and the NPOP (National Programme for Organic Production) organic certification. Maximum residue limits (MRLs), HACCP, and Codex standards must now be followed in order to access developed markets like the US and the EU. These certification and quality standards are a crucial component of India's export policy framework since they directly affect the acceptability and competitiveness of Indian goods in global trade.

Trade Agreements and International Relations

India has ratified several regional trade agreements since 2000, such as preferential trade agreements, CEPA (comprehensive economic partnership agreements), FTA (free trade agreements), and CECA (comprehensive economic cooperation agreements). India's merchandise exports increased from

\$43878.49 million in 2001 to \$323250.73 million in 2019, demonstrating how these agreements have facilitated international trade (Srivastava and Gawai 2023) [39]. However, India's merchandise imports have consistently outpaced its merchandise exports, resulting in a trade deficit. Since 1991, when economic policies were implemented, India's agricultural industry has been a net exporter. India's agricultural imports and exports made up 1.90% and 2.27% of the world's agricultural commerce, respectively, in 2017. Asian nations are now India's main import suppliers.

The ASEAN-India Free Trade Agreement (AIFTA) is an important trade agreement development that has occurred in recent decades in Asia. India and ASEAN relations and commerce date back hundreds of years, with the signing of the Free commerce Agreement among 11 nations in 2008, which resulted in India committing to decrease or abolish tariffs on more than 89% of its agriculture, marine, and manufacturing commodities by 2016(Kumari 2025) [22]. The bulk of India's population depends on agricultural trade, making it a crucial research topic. In 2021-2022, about 54.6% of Indians were employed in agriculture, which provides necessities including food, medicine, housing, and savings. Agriculture can also provide social benefits such as freedom, knowledge, a social network, and relationships. The agricultural sector's growth rate for 2021-22 is 3.9%, up from 3.6% in 2020-21(Anon n.d.). In 2020-21, the agricultural industry accounted for 20.2% of the total GDP.

India has signed a number of regional trade agreements (RTAs) to increase exports and expand its global value chains. One of the most notable deals is India's free trade agreement with the European Union. A reduction in applied tariffs under an FTA can result in trade creation and diversion. A free trade agreement is deemed advantageous when the volume of trade creation exceeds the volume of trade diversion. The EU is India's second-largest agricultural trading partner and importer of agricultural commodities from India. The FTA between India and the EU has the potential to enhance trade value by almost fourfold. However, the India-EU FTA, having a tariff rate of 5.92 percent,

resulted in a large increase in trade diversion rather than trade development (Sain and Singh 2024) [33]. This study investigates the FTA's possible influence on the Indian horticultural market, estimating the size of significant horticultural trade formation and diversion, the effect on revenue loss, the increase in consumer surplus, and the overall net effect on the Indian horticultural market. The findings could help policymakers in trade discussions and develop policies to alleviate vulnerabilities and exploit advantages in the agriculture sector, notably in horticulture.

On May 6, 2025, India and the UK signed a historic Free Trade Agreement (FTA) that will boost bilateral trade by an estimated £25.5 billion after three years of negotiations (Alam et al. 2024) [3]. By removing tariffs on 90% of UK exports and 99% of Indian exports, the agreement simplifies market access and lowers costs for both consumers and businesses. In addition to important provisions for service professionals and a social security exemption for temporary Indian workers in the UK, it addresses goods, services, and workforce mobility. Along with phased tariff reductions on high-value UK exports like cars, medical equipment, and whisky, the agreement excludes sensitive Indian industries like smartphones and some industrial goods. The FTA, which is slated to be fully implemented in 15 months, is positioned as a strategic step toward reaching a bilateral trade target of US\$120 billion by 2030, which will promote innovation, job creation, and economic growth in both nations.

Challenges in Import and Export of Agricultural Products

Many challenges hinder India's agricultural trade's effectiveness and ability to compete globally. Long- term contracts are discouraged by frequent policy changes that cause uncertainty for farmers and traders alike, such as abrupt export prohibitions, modifications to Minimum Export Prices (MEP), and fluctuating import duties. Poor storage facilities, high logistics costs, and a weak cold chain infrastructure all contribute to post-harvest losses and lower competitiveness, especially for perishable goods (Lukyanova et al. 2021) [24]. Due to deficiencies in quality assurance and traceability systems, consignments of seafood, spices, and basmati rice are frequently rejected in developed markets because of contamination or pesticide residues, which further hinders Indian exporters' compliance (Rozhkova and Dalisova 2021) [32]. Tariff barriers are used to protect importers' farmers, while exporters must contend with strict non- tariff barriers like Sanitary and Phytosanitary (SPS) regulations in global markets. The volatility of global prices and intense competition from countries like Vietnam, Brazil, and Thailand also affect India's market share. Due to low value addition and weak international branding, India still exports a lot of raw materials rather than high-value processed goods, and climate change further exacerbates instability by disrupting production cycles and exportable surpluses. Together, these factors create a complex trade and policy environment that hinders India's potential to grow into a significant agricultural exporter.

Recent Policy Reforms and Trends

With the aim of increasing productivity, ensuring food security, and enhancing competitiveness in global trade, India has implemented significant reforms and changes to its agricultural policies in recent years. The Agriculture Export Policy (2018), which prioritized value addition, export basket diversification, and farmer connections to global markets, was a significant turning point. (Saxena *et al.* 2023b) [35]. Dynamic trade policies, like changing import taxes on edible oils and pulses or

temporarily prohibiting the export of wheat, rice, and sugar, have been used more frequently by the government to balance inflation and domestic supply. Policies like the Agri-Infrastructure Fund (2020) for cold chains and storage and the e-NAM (Electronic National Agriculture Market) platform to digitally integrate wholesale markets have also focused on infrastructure and digitalization. (Srikanth et al. 1AD) Sustainability and climate resilience have emerged as key themes as a result of the National Programme for Organic Production's (NPOP) increased promotion of organic farming and initiatives that support natural farming. Additionally, the government now uses income support programs like PM-Kisan, which provide farmers with direct benefit transfers, instead of direct subsidies. In order to meet international Sanitary and Phytosanitary (SPS) standards, recent reforms have also placed a strong emphasis on quality and traceability systems. APEDA and commodity boards are pushing certifications such as HACCP and GLOBALG.A. P (Anon 2024). All things considered, the trend shows a slow shift away from protectionist policies and toward market- oriented, export-driven, and sustainability-focused agricultural policies; however, frequent trade restrictions and policy reversals continue to be significant issues.

Future Prospects and Recommendations

India's agricultural trade's future depends on striking a balance between opportunities for international markets and domestic food security. India has enormous potential to diversify its export portfolio beyond conventional goods like rice, wheat, and spices due to the growing demand for processed, organic, and sustainable food products worldwide. India can compete with other major agri-exporting countries and advance up the value chain with investments in value addition, food processing, and branding. Improving export competitiveness and lowering postharvest losses, especially for perishable goods, will require strengthening the cold chain, storage, and logistics infrastructure. Additionally, India can diversify its markets and lessen its reliance on a small number of export destinations by utilizing free trade partnerships and regional trade agreements. Transparency and policy stability are crucial at the same time. Regular adjustments to export prohibitions, tariffs, and other restrictions impede trade and damage India's reputation as a trustworthy exporter. Therefore, short-term, crisis-driven decisions should be replaced by long-term trade strategies that are in line with international standards. Indian products will be more widely accepted in upscale international markets if adherence to Sanitary and Phytosanitary (SPS) regulations is increased and certifications like organic, fair-trade, and geographical indications are promoted. Furthermore, in order to meet the demand for environmentally friendly products worldwide and ensure resilience against climate change, climate-smart agriculture and the promotion of sustainable farming practices will be essential. Policies must prioritize direct market connections, digital platforms, and cooperatives that link smallholders with global buyers in order to guarantee farmer welfare and lessen reliance on middlemen. Market access and export preparedness can be further improved by fortifying organizations such as commodity boards, APEDA, and farmer producer organizations (FPOs). India's agricultural sector has the potential to become a global leader if it has stable policies, stateof-the-art infrastructure, sustainability-driven practices, and trade reforms that prioritize farmers.

Conclusion

India's agricultural import and export policies are designed to balance the two objectives of preserving domestic food security and remaining competitive in global markets. Import restrictions like tariffs, quotas, and SPS measures shield farmers from unfair competition while ensuring the supply of essential commodities. On the other hand, export policies aim to increase India's export basket, promote its agricultural surplus, and open up new markets. They are often influenced by concerns about the stability of domestic prices. Notwithstanding recent reforms such as the Agriculture Export Policy (2018), e-NAM, and a greater focus on sustainability and quality certification, frequent policy reversals such as export bans and sudden tariff changes continue to impede long-term trade stability. Future investments in infrastructure, digitization, and conformity to international standards, along with open, predictable, and farmer-focused trade policies, will be necessary to improve India's standing in world's agricultural trade. Future investments in infrastructure, digitization, and conformity to international standards, along with open, predictable, and farmer-focused trade policies, will be necessary to improve India's standing in the world's agricultural trade.

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